



**STATEMENT OF MR. BOB ROBERTS, President & CEO,
Syracuse Research Corporation
before the
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON PROJECTION FORCES
June 29, 2005**

Mr. Chairman, members of the Subcommittee, thank you for holding this hearing today and for recognizing the critical intersection between product innovation and small business. Small business drives innovation in this country, in our Nation's economy and certainly in the defense sector. I am Bob Roberts, president and CEO of Syracuse Research Corporation, and I am here to showcase an important example of small business innovation. It is a privilege to do so and I thank you for the opportunity.

The Lightweight Counter Mortar Radar system, or LCMR, is a system we took from concept on the back of an envelope to field deployment in less than three years. Our commitment and drive to be successful on this project was matched only by our customer's, the United States Army. You might have looked at the assembled LCMR in this room and questioned why a 128 pound radar can be called lightweight. The answer lies in comparing it with existing similar defense systems.

Prior to LCMR, the Army's ability to detect mortar launches and accurately target them for counter measures was housed in a 10,000 pound radar system. It took a mini-construction effort to assemble



and maintain the system, and its effectiveness was limited to 90 degrees of coverage. The enemy knew how to test the system, and once outside the 90 degrees, the only warning of a mortar attack was the explosion itself. In those instances, targeting launch sites was subjective and not very accurate. The system was expensive.

The Army wanted, indeed needed, something smaller, more effective and easier to operate and maintain. Our engineers were confident they could meet the challenge and they did.

As I said earlier, LCMR weighs 128 pounds. It can be dropped in almost any environment and made operational within minutes. It is easy to maintain and operate, has 360 degree field coverage, and detects mortars beyond the effective range of most mortar weapons. It accurately targets the mortar launch location in less than two seconds, allowing a very rapid counter measure response. Its cost is a fraction of the old system.

LCMR requires only a small amount of power and can operate off of a vehicle or commercial power. It can run on batteries for more than six hours. Except for the power source and display, all electronics are self-contained in the LCMR antenna. The radar reports mortar launches and target locations to a PDA, which operates wirelessly so that the operator need not be at the radar itself.

The initial 32 LCMR units are in theater today, have more than 100,000 operational hours, are tracking mortars daily and operate 24/7 with minimal critical failures. In addition, a modified LCMR is performing



critically important functions for high value domestic targets here in the United States.

LCMR was recognized by the Army as one of their Top 10 Greatest Inventions for 2004. It is one of two premiere systems we have built in response to Army requirements for technology to effectively counter enemy tactics that are killing our soldiers. The employees of Syracuse Research are proud of our efforts and believe we are making a solid contribution to the war effort and to the safety of our troops.

Yes, we went head to head with the acquisition process, and it is never easy, especially for small business. The system is designed to mitigate risk, not to satisfy immediate military requirements, and it is better navigated by large companies at great cost to the government. Requirements of the military for goods and services too often get subordinated to a process steeped in regulatory and legislative statute, precedent and history.

With LCMR, we worked within the system as best we could. We were fortunate to work with the US Army-CECOM at Fort Monmouth acquisition office, who worked with us every step and to every extent possible given the processes for which the office is responsible. This is unusual. Further, I made the decision at a critical point to front load \$5 million in capital requirements so that LCMR would be ready for delivery when and should the orders arrive. They did arrive and LCMR was ready. By the way, I breathed a bit easier when those orders arrived; I realize that \$5 million constitutes a rounding error for



many in our business but that is make or break capital at Syracuse Research.

We came to Congress for support, and through the leadership of Congressman James Walsh, of the 25th District of New York, you chose to front load the program as well and expedite development.

On the subject of the acquisition process, I know Congress is looking at simplifying the tax code. I think that might be a good warm up for what you face in defense acquisition. I leave you with these few observations:

First, and to my initial point, a procurement philosophy that recognizes the linkage between small business and innovation might lead to different rules and more positive perceptions about small business. We and the government would benefit from a simplified procurement process that assures competition and somehow encourages and rewards innovation.

The bottom line is that technology moves too fast and acquisition cycles are too slow and risk averse. LCMR is an exception and not a rule. We were fortunate that the right people were at the right places at the right time.

Our government, defense in particular, must be able to move rapidly through the phases of design, develop, test, produce and field if we are to effectively face 21st century challenges. And that isn't easy to do. Small and fast tend to work more often than big and fast. The



Pentagon is big; its acquisition process needs to be faster and I know that is the challenge with which you struggle. I wish you success in your efforts, and I stand ready to help in any appropriate way.

Allow me to close with this story. Last week, Colonel Lee Flake (retired), visited our corporate headquarters having recently returned from Iraq. He wanted to meet the LCMR team because his unit happened to be the first to receive an LCMR system. Mortars were a daily occurrence until LCMR. Within days of tracking and targeting for successful counter measures, the mortars stopped. You can imagine our pride in his visit and his story.

Again, thank you for the opportunity to appear here today. I look forward to any questions you may have.



ADDITIONAL NOTES

Dates:

Sept. 1999: BAA Released for a Man-Portable Counter-Mortar Detection

System January 2000: Presented initial concept to SOCOM June 2000:

Prototype demonstration contract awarded (MCMR) Aug-Nov 2001:

Successful prototype testing at Aberdeen Dec 2001: Final prototype demonstration for SOCOM June

2002: LCMR EDM contract awarded (Congressional funding) Nov 2004:

SRC orders long lead materials in anticipation of Army Award (\$5M risk)

Feb 2004: Army orders 23 systems

Apr 2004: First LCMR systems delivered to Army for OEF/OIF Dec 2004:

31 Systems delivered

Counter Rocket Artillery Mortar (CRAM)

Nov 2004: Initial Demo at YPG (LCMR demonstrates Search and Early Warning capability)

Feb 2005: Sense & Warn Demo at YPG (LCMR cues Early warning system

through FAAD C2 Apr 2005: Lethality Demo at YPG (LCMR provides cues to Phalanx) Jul

2005: Expeditionary Sense and Warn Demo (demonstrate cueing for rockets)